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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,736

12/31/2003

Gary L. Howe

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1833

7590

12/21/2004

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EXAMINER

LE, THONG QUOC

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/750,736	Applicant(s) HOWE, GARY L.	
	Examiner Thong Q. Le	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 21-29 and 31-37 is/are rejected.
- 7) ☒ Claim(s) 19, 20 and 30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: ____ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

DETAILED ACTION

1. Claims 1-37 are presented for examination.

Information Disclosure Statement

2. This office acknowledges receipt of the following items from the Applicant:
Information Disclosure Statement (IDS) filed on March 22, 2004.
3. Information disclosed and list on PTO 1449 was considered.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-18,21-29,31-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Manning et al. (U.S. Patent No. 6,005,816).

Regarding claims 1, 14, 21, Manning et al. disclose system (Figure 8) comprising:

a processor (302) ; and

a memory device coupled to the processor that comprises:

a memory array (10) ; and

a buffer device (Figure 8) comprising:

a plurality of comparators (Figure 4, 160) , wherein each of the plurality of comparators is adapted to receive a data signal and one of a first signal and a second signal, wherein the second signal is a complimentary signal of the first signal (ABSTRACT, Column 2, lines 20-33); and

a plurality of two channel comparators adapted to receive a plurality of output signals from the plurality of comparators and to produce a first output signal and a second output signal with the second output signal being a complimentary signal of the first output signal (Figure 4).

Regarding claims 2-13,15-18, 22-31, Manning et al. disclose wherein the memory device comprises a dynamic random access memory (Figure 8, 326), and wherein the memory device comprises a static random access memory (10), and wherein the processor is coupled to a communication port (Figure 8, 316), and wherein the processor is coupled to an input device (Figure 8, 314), and wherein the processor is coupled to a display and wherein the memory device comprises a pin adapted to receive the data signal (Figure 1, 14), and wherein the processor transmits the data signal through the pin to the buffer device (Figure 2, 44), and wherein the data signal comprises control information (Figure 8, 330), and wherein the data signal comprises address information (Figure 5), and wherein each of the plurality of comparators

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comprises a differential amplifier (Figure 4, ABSTRACT), and wherein each of the plurality of two channel comparators comprises a two channel differential amplifier (Figure 4), and wherein the first signal is a clock signal (Column 2, lines 1-15).

Allowable Subject Matter

7. Claims 19-20,30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 19-20,30 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Manning et al. (U.S. Patent No. 6,005,816), and others, does not teach the claimed invention having a input buffer, wherein the plurality of comparators comprises a first comparator adapted to receive the data signal at a positive input terminal; receive the first signal at a negative input terminal, and produce a first comparator output signal, a second comparator adapted to receive the data signal at a positive input terminal receive the second signal at a negative input terminal; and produce a second comparator output signal, a third comparator adapted to: receive the first signal at a positive input terminal receive the data signal at a negative input terminal; and produce a third comparator output signal, and a fourth comparator adapted to, receive the second signal at a positive input terminal receive the data signal at a negative input terminal, and produce a fourth comparator output signal.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Le
Primary Examiner
Art Unit 2818

THONG LE
PRIMARY EXAMINER